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ABSTRACT

This handbook identifies the major reference sources for various engineering fields at the Library of Science and Medicine (LSM) at Rutgers University. The resources are divided into 15 categories and provide full call numbers and locations for every title. These categories include: (1) Card Catalog and Online Catalog; (2) Guide to the Literature and Information Sources; (3) Encyclopedias; (4) Dictionaries and Thesauri; (5) Handbooks; (6) Bibliographies; (7) Indexes and Abstracts; (8) Directories; (9) Codes and Standards; (10) Statistical Sources; (11) Government Documents and Patent Information; (12) Grants Information Sources; (13) Dissertations and Theses; (14) Reference Manuals for Graduate Students; and (15) Computer Search Services and Databases. Concluding the handbook are the following appendixes: (1) a draft of the engineering collection policy statement; (2) a brief introduction to LSM; (3) library borrowing policies; (4) library research tips; and (5) how to request an interlibrary loan. (MAB)

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Library Research Handbook for Faculty and Graduate Students at the College of Engineering

---- *A Selective Guide to Engineering Reference Materials at the Library of Science & Medicine*

By

Connie Wu
Engineering Resource Librarian

IR 054 014

Rutgers University Libraries
December 1989

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PREFACE

I had this project in my mind when I first came to Rutgers. In the past two years, I have seen the difficulty that people at the College of Engineering have had in using LSM because of the distance between the library and the college. As an engineering resource librarian, I am concerned about the information needs of the engineering faculty and students at Rutgers. I think that only thing I can do is to provide a better service. That is why I utilized my spare time to compile this handbook.

This handbook contains only the most important reference resources for various engineering fields at LSM. I have divided these resources into 15 categories and provide full call numbers and locations (most of them are located in the Reference or Reference Periodical collection on 2nd floor) for every title. I believe that this handbook will save user's time in conducting their library research and will help users get easier access to engineering materials at LSM.

I would like to express my gratitude to Jeanne E. Boyle, the director of Science Research LIbraries, for her encouragement and support. I am appreciative of the comments and correction provided by Patricia A. Piermatti, the pharmaceutical sciences librarian. My appreciation goes to Dr. Dill, the dean of the College of Engineering, and professors at the college for their deep concerns for library engineering collections. They deserve library service!

Connie Wu
Engineering Resource LIbrarian

Piscataway, 1990

I. Card Catalog and Online Catalog

Card Catalog

The Card Catalog on Level 2 of the Library of Science & Medicine(LSM) contains catalog cards to all materials added to the library before 1990. However it does not contain any information on library materials in other Rutgers libraries. The card catalog has two parts: one for author/title, another for subject. Using the Library of Congress Subject Headings Guide near the card catalog can help you to determine subjects used in the subject part. Standard subdivisions may be used following most subject headings, e.g. ELECTRICAL ENGINEERING--CALCULATIONS or CERAMICS--HANDBOOKS, etc.

The Rutgers libraries use the Library of Congress Classification System for monographic materials. Most engineering books at the library can be found in QA75-QA402, R853-858 and T54 to TS1935 sections(On Level 2). The following guide may be helpful to you as you browse in the collections.

QA75-402	System & Computer Science
R853-858	Biomedical Engineering
S539-B417	Agricultural Engineering
T55.4-178	Industrial Engineering
TA170-1280	Civil Engineering
TA349-360	Mechanics of Engineering
TA401-492	Materials of Engineering
TA1501-1820	Applied Optics; Lasers
TH6014-7975	Environmental Engineering
TJ170-1345	Mechanical Engineering
TK1001-8360	Electrical Engineering
TL500-778	Aeronautics, Aeronautical Engineering
TN600-799	Metallurgy
TP155-156	Chemical Engineering
TP785-888	Clay Industries; Ceramics; Glass
TP1080-1185	Plastics & Plastics Manufacture
TS195-198.8	Package
TS200-770	Metal Manufactures

Online Catalog

The Rutgers University Online Catalog, the primary public component of IRIS, provides access to bibliographic information about many of the materials owned by the libraries in New Brunswick, Camden and Newark, with the exception of the law libraries. In some ways it is similar to a card catalog. However, it is more versatile and will allow you to search by author, title, and subject as well as by keyword and by a variety

numbers, e.g. call number, course number, etc. Through the Online Catalog you can determine which libraries own the items you are looking for, whether these items are on the shelf or in circulation. In the near future, you will be able to use your own computer at your office or home to take access to the Online Catalog through university wide dialing system.

The Online Catalog does not contain records for all the materials in the Rutgers libraries. Most titles cataloged since 1975, as well as older titles which have circulated since 1984, are included. For detail information or search strategy, please read the Online Catalog brochure which is available at all Rutgers libraries.

II. Guide to the Literature and Information Sources

Guides to the literature and information sources can help a researcher to determine which bibliographies, indexes, directories, statistical sources and other reference books pertain to his or her subject, or where he or she can find the specific information needed. These guides can often save hours of research time if they are consulted at the beginning of a research project.

Aluri, Rao A Guide to U.S. government scientific and technical resources 1983
REF Q224.3.U6A43 1983

Anthony, L.J., ed. Information sources in energy technology 1988
REF TJ163.17.I54 1988

Anthony, L.J., ed. Information sources in engineering 1985
REF T10.7.I54 1985

Ardis, Susan A Guide to the literature of electrical and electronics engineering 1987
REF TK145.A83 1987

Chem sources U.S.A. 1973-
REF TP12.C443

Chemical engineering equipment buyers' guide 1980/81-
REF TA214.C55

Computer science source book 1987
REF QA76.15.C633 1987

Forthcoming international scientific and technical conferences 1971-
REF A815.F62

Grogan, Denis Joseph Science and technology : an introduction to the literature 1982
REF Q225.5.G76 1982

Guide to materials engineering data and information 1986
REF TA403.6.G85 1986

Handbooks and tables in science and technology 1983
REF Q199.H35 1983

Harvey, Anthony P., ed. European sources of scientific and technical information 1989
REF T10.65.E8E84 1989

Hassler, Peggy M. Three mile island : a researcher's guide to selected government publications and government-sponsored research publications 1988
REF TK1345.H37 1988

Hecht, Jeff The Laser guidebook 1986
REF TA1683.H43 1986

Helma, Howard D. Literature in digital signal processing : author and permuted title index 1975
REF TK5101.H44 1975

Highway design reference guide 1988
REF TE145.64 1988

Hyatt, E. Key guide to information sources in remote sensing 1988
REF Z6004.R38H9 1988

Information sources in energy technology 1988
REF TJ163.17.I54 1988

Lead in the world of ceramics : a source book for scientists, engineering,and students 1984
REF TP786.L43 1984

Lesko, Matthew Lesko's new tech sourcebook : a directory to finding answers intoday's technology-oriented world 1986
REF T10.63.A1L47 1986

The Machine vision sourcebook 1986
REF TA1632.B72 1986

Maizell. Robert Edward How to find chemical information : a guide for practicing chemists, teachers, and students 1979
REF QD8.M34

Malinowsky, Harold Robert Science and engineering literature : a guide to reference sources 1980
Z7401.M28 1980

Medical device register 1981-
REF R856.48.M42

Morgan, Bryan Keyguide to information sources in agricultural engineering 1985
REF 8675.M67 1985

Parker, C.C. Information sources in science and technology : a practical guide to traditional and online use 1986
REF Q224.P37 1986

Parker, Sybil P. Fluid mechanics source book 1988
REF TA357.F582 1988

Resource guide for transportation engineering education 1984
REF TA1145.R46 1984

Schenk, Margaret T. What every engineer should know about engineering information resources 1984
REF T10.7.834 1984

The Software catalog. science and engineering 1984-
REF QA76.753.8662

Subramanyam, K. Scientific and technical information resources 1981
REF Q158.5.893

Sullivan, Thomas and Richard F. Hill, ed. Environmental information sources 1986
REF TD169.6.E66 1986

Webster, James K., ed. Toxic and hazardous materials : a sourcebook and guide to information sources 1987
REF T55.3.H3T69 1987

Wolman, Yecheskel Chemical information : a practical guide to utilization 1983
REF QD8.5.W64

III. Encyclopedias

Encyclopedias provide general information articles to a variety of subject topics. You can use encyclopedias to acquaint yourself with unfamiliar topics.

Bever, Michael B., ed. Encyclopedia of materials science and engineering 1986
REF TA402.E53 1986

Dorf, Richard C. International encyclopedia of robotics : applications and automation 1988-
REF TJ210.4.I57 1988

Encyclopedia of chemical technology
REF TP9.E686

Encyclopedia of engineering materials 1988
REF TA402.E525 1988

Encyclopedia of fluid mechanics 1986-
REF TA357.E53 1986

Encyclopedia of polymer science and engineering 1985-
REF TP156.P6E5 1985

Encyclopedia of telecommunications 1989
REF TK5102.E645 1989

Gigilisco, Stan Encyclopedia of electronics 1985
REF TK7804.E47 1985

Gibilisco, Stan International encyclopedia of integrated circuits 1989
REF TK7874.G53 1989

Grayson, Martin Encyclopedia of glass, ceramics, and cement 1985
REF TP788.E6 1985

Key engineering materials
REF TA404.8.M431

McGraw-hill encyclopedia of science & technology : an international reference work in twenty volumes including an index 1987
REF Q121.M3 1987

Mcketta, John J., ed. Encyclopedia of chemical processing and design 1976-
REF TP9.E66

Meyers, Robert A., ed. Encyclopedia of telecommunications 1989
REF TK5102.E645 1989

Modern plastics encyclopedia 1988
REF TP986.A1M62

Parker, Sybil P., ed. McGraw-hill encyclopedia of electronics and computers 1988
REF TK7804.M43 1988

Parker, Sybil P., ed. McGraw-hill encyclopedia of engineering 1983
REF TA9.M36 1983

Pfafflin, J.R. and E.N. Ziegler, ed. Encyclopedia of environmental science and engineering 1983
REF TD9.E5 1983

Ralston, Anthony and Edwin D. Reilly, ed. Encyclopedia of computer science and engineering 1983
REF QA76.15.E48 1983

Singh, Madan G., ed. Systems & control encyclopedia : theory, technology, applications 1987
REF QA402.8968 1987

Tottle, C.R. An Encyclopedia of metallurgy and materials 1984
REF TN609.T475 1984

Ullmann, Fritz Ullimann's encyclopedia of industrial chemistry 1985-
REF TP9.U615 1985

Webster, John G., ed. Encyclopedia of medical devices and instrumentation 1988
REF R856.A3E53 1988

The Wiley encyclopedia of packaging technology 1986
REF T8195.A2W55 1986

IV. Dictionaries and Thesauri

Because terminology in engineering fields is extraordinarily specialized and each discipline has its own extensive terminology, a number of dictionaries exist for the various fields of engineering. The following is a selective list of dictionaries covering engineering fields in LSM.

Acronyms and initialisms dictionary : a guide to alphabetic designations, contractions, acronyms, initialisms, and similar condensed appellations 1973
REF PE1693.G3 1973

Aerospace dictionary : English, French, German, Spanish 1984
REF TL509.A37 1984

Buttress, F.A. World guide to abbreviations of organizations 1984
REF AS8.B8 1984

Computer glossary : the complete illustrated desk reference 1989
REF QA76.15.F734 1989

Dictionary of engineering acronyms and abbreviations 1989
REF TA11.E73 1989

Dictionary of robotics 1985
REF TJ210.4.W35 1985

Dictionary of technology, English, German 1984
REF T10.W32 1985

Electrical and computer acronyms 1988
REF TK9.B76 1988

Elsevier's dictionary of chemical engineering in six languages 1968
REF TP9.E4 1968

Elsevier's telecommunication dictionary, in six languages, English/American, French, Spanish, Italian, Dutch and German 1976
REF TK5102.E64 1976

Ernst, Richard Comprehensive dictionary of engineering and technology : with extensive treatment of the modern techniques and processes 1982
REF T10. E747 1982

The Facts on file dictionary of artificial intelligence 1989
REF Q334.2.F33 1989

Glossary : water and wastwater control engineering 1981
REF TD9.G55 1981

Gunston, Bill Jane's aerospace dictionary 1986
REF TL509.G86 1986

Graf, Rudolf F. The Encyclopedia of biomedical engineering terms 1977
REF R856,G68

Haensch, G'unther Dictionary of agriculture : in six languages, German, English, French, Spanish, Italian, Russian : systematical and alphabetical 1986
REF S411,H2613 1986

Hawley's condensed chemical dictionary 1987
REF QD5.C5 1987

IEEE standard dictionary of electrical and electronics terms 1984
REF TK9.I478 1984

Japanese-Chinese-English dictionary 1986
REF T10.I572 1986

McGraw-Hill dictionary of engineering 1984
REF TA9.M35 1984

McGraw-Hill dictionary of scientific and technical terms 1989
REF Q123.M34 1989

Graf, Rudolf F. Modern dictionary of electronics 1984
REF TK 7804.G67 1984

Murith, Jean Scientific, Technical and commercial organizations : a dictionary of initials 1987
REF T8.M86 1987

Nayler, G.H.F. Dictionary of mechanical engineering 1985
REF TJ9.N28 1985

O'Bannon, Loran S. Dictionary of ceramic science and engineering 1984
REF TP788.O2 1984

Parker, Sybil P., ed. McGRaw-Hill dictionary of mechanical and design engineering 1984
REF TJ9.M395 1984

Perkins, Walter W., ed. Ceramic glossary, 1984 1984
REF TP788.C37 1984

Preston, Edward J. CAD/CAM dictionary 1985
REF T8155.6.P73 1985

Rosenberg, Jerry Martin Dictionary of computers, information processing, and telecommunications 1987
REF QA76.15.R67 1987

Schmid, Rolf Dictionary of biotechnology in English, Japanese, German 1986
REF TP248.16.836 1986

Scott, John S. Dictionary of building 1984
REF TH9.84 1984

Sneddon, Ian Naismith Encyclopedic dictionary of mathematics for engineers and applied scientists 1976
REF QA5.866 1976

Thesaurus of engineering and scientific terms 1967
REF Z695.1.E5E5 1967b

Walker, Pater M.B., ed. Chambers science and technology dictionary 1988
REF T9.C5 1988

Weik, Martin H. Communications standard dictionary 1989
REF TK5102.W437 1989

V. Handbooks

Handbooks are compact reference sources that contain data and descriptive information. They are logically arranged and provide charts, tables, graphs, glossaries, and detailed discussions. The following titles are listed as examples of handbooks in LSM.

ACI manual of concrete practice 1977-
REF TA680.A35

Antenna handbook : theory, applications, and design 1988
REF TK7871.6.A495 1988

Bansal, Narottam P. Handbook of glass properties 1986
REF TA450.B27 1986

The Building estimator's reference book 1986
REF TH435.B8 1986

Chanda, M. Plastics technology handbook 1987
REF TA455.P5C46

Chemical engineers' handbook 1973
REF TP155.C42

Civil engineer's reference book 1989
REF TA151.C58 1989

CRC handbook of engineering in agriculture 1988
REF 867.C73 1988

CRC handbook of lubrication 1984
REF TJ1075.C7 1984

Croft, Terrell, American electricians' handbook 1987
REF TK 151.C8 1987

Electrical engineer's reference book 1985
REF TK151.E44 1985

Electronics engineers' handbook 1989
REF TK7825.E34 1989

Electronics engineer's reference book 1983
REF TK7825.E346 1983

Finite element handbook 1987
REF TA347.F5F578 1987

Freeman, Roger L. Reference manual for telecommunications engineering 1985
REF TK5102.5.F68 1985

Fundamentals handbook of electrical and computer engineering 1982-
REF TK151.F86 1982

Handbook of digital signal processing : engineering applications 1987
REF TK5102.5.H32 1987

Handbook of energy systems engineering : production, and utilization 1985
REF TJ163.9.H35 1985

Handbook of glass data 1983-
REF TP848.H36 1983

The Handbook of glass manufacture : a book of reference for the plant executive, technologist, and engineer 1984
REF TP857. H36 1984

Handbook of industrial engineering 1982
REF T56.23.H36 1982

Head, K.H. Soil technicians' handbook 1989
REF TA710.5.H42 1989

Heat exchanger design handbook 1983-
REF TJ262.H38 1983

Horn, Delton T. The Master handbook of IC circuits 1989
REF TK7874.H678 1989

Hsu, Teng H. Structural engineering and applied mechanics data handbook 1988
REF TA633.H77 1988

Idel-chik, I.E. Flow resistance : a design guide for engineers 1989
REF TA357.I33 1989

Instrument engineers' handbook : process control 1985
REF TS156.8.I56 1985

International metallic materials cross-reference 1988
REFTA461.I57 1988

Juran's quality control handbook 1988
REF TS156.J87 1988

Keith, Lawrence & Walters, Douglas Compendium of safety data sheets for research and industrial chemicals 1985
REF TP200.C66

Kempe's engineers year-book 1989
REF TA151.A6E6 1989

Marks' standard handbook for mechanical engineers 1978
REF TJ151.M37 1978

Markus, John Essential circuits reference guide 1988
REF TK454.M29 1988

Materials handbook 1929-
REF TA403.M35

Mechanical and corrosion properties 1975
REF TA404.8.M43

Mechanical engineering essentials reference guide 1988
REF TJ151.M394 1988

Medical engineering 1974
REF R856.R39 1974

Merritt, Frederick S. Civil engineering reference guide 1986
REF TA151.M44 1986

Metals handbook 1978
REF TA459.A5 1978

Morgan, Walter L. Communications satellite handbook 1989
REF TK5104.M67 1989

Oberg, Erik Machinery's handbook: a reference book for the mechanical engineer, designer, manufacturing engineer, draftsman, toolmaker, and machniist 1988
REF TJ151.O245 1988

Perry, Robert H. Engineering manual : a practical reference of design methods and data in building systems, chemical, civil, electrical, mechanical, and environmental engineering and energy conversion 1976
REF TA151.P645 1976

Perry's chemical engineers' handbook 1984
REF TP151.P45 1984

Plastics engineering handbook 1954-
REF TP986.A1P4

Primrose McConnell's the agricultural notebook 1988
REF S513.2.M33 1988

Process instruments and controls handbook 1985
REF TS156.8.P764 1985

Revnolds, Charles E. Reinforced concrete designer's handbook 1988
REF TA683.2.R48 1988

Richey, C.B., ed. Agricultural engineers' handbook 1961
REF S675.R5

Standard handbook of environmental engineering 1990
REF TD145.S72 1990

Standard handbook for civil engineers 1983
REF TA151.S8 1983

Thermophysical properties of matter, the TPRC data series
REF TA407.P83

Tool and manufacturing engineers handbook : a reference book for manufacturing engineers, managers, and technicians 1983-**REF TS176.T63 1983**

Transportation and traffic engineering handbook 1976
REF HE333.T68 1976

The world yearbook of robotics research and development 1985
REF TJ210.2.W67

VI. Bibliographies

A bibliography is a list of information sources pertinent to a particular subject or topic. When background information is needed, the availability of a bibliography is important and can be time saving.

Bibliographic guide to technology 1983-
REF TA145.N482

Fox, M.F. Bibliography on engine lubricating oil 1987
REF TJ789.F69 1987

Global research on drainage in agriculture : an annotated bibliography, 1960-1986 1987
REF TC70.G86 1987

Gomersall, Alan Lasers in materials processing : a bibliography of a developing technology 1986
REF TA1675.G672 1986

Gomersall, Alan Robotics : an international bibliography with abstracts 1984
REF TJ211.G63 1984

House, Arthur S. The Recognition of speech by machine : a bibliography 1988
REF TK7882.S65H68 1988

Hydraulic system contamination bibliography 1988
REF TJ843.H9 1988

Masonry bibliography 1830-1987 1988
REF TH5311.M37 1985

McAninch, Sandra Sun power : a bibliography of United States government documents on solar energy 1981
REF TJ810.M28

Robotics bibliography 1970-1981 1981
REF T59.4.R62 1981

Stopp, G. Harry Acid rain : a bibliography of research annotated for easy access 1985
REF TD196.A25876 1985

VII. Indexes and Abstracts

Indexes and Abstracts will help you to find articles on a topic. Indexes are usually arranged alphabetically by subject and author, and abstracts provide summaries of journal articles, conference proceedings and technical reports. etc. The following titles can be found in the REF PER area in LSM.

Applied mechanics reviews 1988-
Periodical (on 3rd floor)
A critical review of the world's literature in applied mechanics and related sciences. Arranged by subject.

Applied science and technology index 1958-
REF PER T1.A6
A subject index to about 225 English language periodicals covering both the theoretical science and their engineering applications. It includes pure physics, chemistry and geology, mathematics, metallurgy, computer science and various subfields of engineering.

Ceramic abstracts 1922-
REF PER TP785.C3
Arranged by subjects, also provides the patent information. Indexed by keyword.

Computer and control abstracts 1969-
REF PER QA76.C58
An international abstracting journal covering systems and control theory, control and computer technology and applications, systems and equipment. indexes by author, bibliography, books, conferences, patents and subject.

Conference paper index
REF AS15.C81
Provides scientific, technical engineering, and medical researcher with timely access to the latest ongoing research and development information presented at professional meetings throughout the world. Indexed by author and subject.

Current contents: engineering, technology & applied sciences current+1
Periodical (Current Periodical Room)
Reproduces the tables of contents from selected journals in engineering and technology. Keyword index provides subject access to the most current material available.

Electrical and electronics abstracts 1966-
REF PRE TK1.E39
Groups electrical and electronics engineering into general topics, circuits and electronics, electron devices and materials,

electromagnetic and communications, instrumentation and special applications, and power and industry. Includes author and subject indexes.

Engineering index 1892-
REF PER TA1.E62
Covers all branches of engineering. It indexes more than 2.050 journals and all pertinent reports, symposium papers, patents, books, etc. indexes by author and subject. Indicative abstracts are arranged in classified subject order.

Excerpta medica Section 27: Biophysics, bio-engineering and medical instrumentation 1967-
REF PER TA164.E9
A major international abstracting service screening more than 3,500 medical journals in the health sciences, with author and subject indexes.

Government reports announcement & index 1971-
REF PER T1.U4
This is a listing of the available reports from NTIS arranged in 22 subject fields, such as: aeronautics, agriculture, biological and medical sciences, electronics and electrical engineering, materials, mechanical, industrial, civil, space technology, etc.

Index to scientific & technical proceedings 1984-
REF AS15.I532

International aerospace abstracts 1961-
REF PER TL501.I5
An abstracting service issued alternately with STAR. Covers the world's literature of aeronautics, space science and technology.

Medical electronics and communication abstracts 1966-
REF PER TA164.M4

Metals abstracts and index 1968-
REF PER TA459.M4
Covering all aspects of the science and practice of metallurgy and related fields as published in primary and secondary forms of literature.

Theoretical chemical engineering abstracts 1968-
REF PER TP155.T5
Principal headings are fluid dynamics, heat transfer, mass transfer, heat/mass transfer. It has a classified arrangement.

World translations index 1978-
REF Z7403.W941
Announces translations of literature relating to all fields

of science and technology from all languages into western languages. It consists of a Cumulation of the Source and Author indexes.

VIII. Directories

A directory is an organized listing of products, people, firms, societies, services, etc. The directories listed below may help you to contact professional societies, research centers and other engineers who are researching in your area, or to find the necessary information about certain products.

American men & women of science : cumulative index, editions 1-14 1983
REF Q141.A5121

Appropriate technology organizations : a worldwide directory
REF T49.5.A657 1984

Corporate technology directory 1986-
REF HG4057.A16

Directory of American research and technology 1986-
REF T176.I65

The Directory of chemical engineering consultants 1988
REF TP12.D475 1988

Directory of engineering societies and related organizations 1979-
REF TA1.D48

Directory of experts and consultants in science and engineering 1987-
REF TA12.D4885

Directory of testing laboratories 1988-
REF TA416.A582

Encyclopedia of associations 1988
REF AS22.G3 1988

Federal yellow book 1976-
REF JK6.F45

Government research directory 1987
REF Q179.98.G68 1987

Industrial research laboratories of the United States 1985-
REF T176.I65

MacRAE's blue book 1989
REF T12.M3 1989

Materials research centers : a world directory of organizations and programmes in materials science 1989
REF TA404.2.M37 1989

National faculty directory 1990
REF L901.N34 1990

OPD Chemical buyers directory 1968-
REF TP12.O6

Research centers directory 1984/1985
REF Q180.A1R5

Scientific and technical organizations and agencies directory 1985-
REF Q145.S35

Sweet's catalog file. products for engineering and retrofit, mechanical, electrical, civil and related products 1984-
REF TA215.S8

Thomas register of American manufacturers and Thomas register catalog file 1983-
REF T12.T6

Who's who in engineering 1977-
REF TA139.E37

Who's who in technology 1986-
REF T39.W5

Who's who of Nobel Prize winners 1986
REF As911.N9W5

IX. Codes and Standards

There are several reference sources at LSM, which provide access to commonly used standards, codes and specifications in engineering. In addition to these traditional printed materials, some powerful computer-searchable databases are also available (see XIV. Computer Databases).

American National Standards Institute Catalog 1976-
REF TA368.O37

American Society of Mechanical Engineers ASME boiler and pressure vessel code 1986-
REF TJ291.A582

American Society for Testing and Materials Annual book of ASTM standards 1970-
REF TA401.A653

ASTM standards in building codes : specifications, test methods, practices, classifications, definitions 1986-
REF TA404.5.A45 1986

Building Officials and Code Administrators International The BOCA basic building code 1981-
REF KF5701.A73B8

Catalog of American national standards 1977-
REF T8199.A44

Harman, Thomas L. Guide to the national electrical code 1979
REF KF5704.H37 1979

Index and directory of U.S. industry standards 1983-
REF T59.2.U6I5 1984

Kverneland, Knut O. World metric standards for engineering 1978
REF TA368.K93

Meier, Hans W. Construction specifications handbook 1989
REF TH425.M44 1989

Ramsey, Charles George Ramsey/Sleeper architectural graphic standards 1988
REF TH2031.A84 1988

Standards and practices for instrumentation 1983
REF TA165.I5967 1983

X. Statistical Sources and Mathematics

Statistical information and mathematical formats, e.g. formulas, charts, and tables are always needed in conducting engineering research. The following directional sources will help you to find the statistics you need when you doing your research.

ASI - American statistics index 1974-
REF PER Z7554.U5A46
It covers over 400 FEDERAL government agencies, indexes by subjects and names, categories, titles, and agency report numbers.

Austin, D.G. Chemical engineering drawing symbols 1979
REF TP149.A97 1979

CRC handbook of tables for applied engineering science 1973
REF TA151.C2 1973

Earle, James H. Graphics for engineers 1988
REF T353,E3 1989

Energy statistics yearbook 1982-
REF HD9502.A1Y42

Engineering and industrial graphics handbook 1982
REF T353.E615

Gieck, Kurt Engineering formulas 1986
REF TA151.G4713 1986

Grazda, Edward E., ed. Handbook of applied mathematics 1966
REF TA330.G7 1966

Handbook of chemical engineering calculations 1984
REF TP149.H285 1984

Hicks, Tyler Gregory Standard handbook of engineering calculations 1972
REF TA151.H52

IIS - Index to International statistics 1983-
REF PER Z7552.I53
It covers 90 INTERNATIONAL agencies, indexes by subjects, names, and geographic areas, categories issuing sources, titles, publication numbers.

Moffat, Donals W. Plant engineer's handbook of formulas, charts, and tables 1974
REF TS184.M63

Schweitzer, Philip A. Corrosion resistance tables : metals, plastics, nonmetallics, and rubbers 1976
REF TA462.S384

Science Indicators 1973-
DOC REF US NS1.28/s:yr
An analysis of the state of U.S. science, engineering, and technology. Statistical tables, and trend analysis and interpretation for topics such as funding for U.S. research and development, science and engineering personnel, and academic science and engineering. Includes subject index.

SRI - statistical reference index 1980-
REF PER Z7554.U587
It covers U.S. PRIVATE organizations and STATE government agencies, indexes by subjects and names, categories, issuing sources, and titles.

Statistics sources : a subject guide to data on industrial, business, social, educational, financial, and other topics for the United States and internationally 1983-
REF HA36.S7

Tuma, Jan J. Engineering mathematics handbook : definitions, theorems, formulas, tables 1987
REF TA332.T85 1987

United States. Bureau of the Census Statistical abstracts of the United States 1989
REF HA202 1989

United Nations. Statistical Office Statistical yearbook 1981-
REF HA12.5U63

XI. Government Documents

The United States government is the largest publisher in the world. It produces and distributes an enormous amount of engineering data in technical reports, contractor reports, periodicals and especially in patents. LSM is an official depository for the United States documents and the U.S. Patent and Trademark Office. This means LSM receives the government documents and patents on a regular basis.

Index to the code of federal regulations 1985-
DOC REF US G54.108:
It provides a well-controlled and comprehensive system of subject and geographic access to federal regulations, regardless of the CFR title in which the information appears.

Index to U.S. government periodicals 1970-
REF PER Z1223.Z9I5
It provides access to every one of the U.S. government periodicals which offers substantive articles of lasting research and reference value. Indexed by author and subject.

Monthly catalog of United States government publications 1895-
REF PER Z1223.A18
This index serves as a guide to the publications of U.S. government departments and agencies. The bibliographic entries are arranged in Superintendent of Document Classification number order. Indexes by author, title, subject, series/report number, contract number, title keyword, etc.

Technical Reports

Energy research abstracts 1977-
REF PER TJ164.E62

EPA publications bibliography
DOC REF EP1.21/7

Government reports announcements & index 1975-
REF PER T1.V4 1988
It is the best source for identifying technical reports, or reports resulting from research done under contract to federal government agencies. The LSM does not receive all reports listed in this index, but most are available for the sale from the National Technical Information Service(NTIS).

STAR Scientific and technical aerospace reports 1963-
REF PER TL501.U635 1988
It is the best source to find technical reports published by NASA.

Patent Information Sources

In addition to the following listed traditional printed patent sources, the LSM also provides online (CASSIS) and CD-ROM (CASSIS/CD-ROM) access to current patent classification information and electronic versions of various patent reference publications published by the U.S. Patent and Trademark Office. The library would be glad to assist you in using these electronic formats.

Attorneys and agents registered to practice before the U.S. Patent and Trademark Office 1985-
DOC REF US C21.9/2:
Part 1 is a list of individuals, with city and state. Part 2 is a geographical list, with complete address, telephone number, and registration number. Recent years issued in microfiche.

Concordance : United States patent classification to international patent classification 1985-
DOC REF US C21.14/2:
As the title suggests, gives approximate international patent classes for U.S. patent classes.

Index of patents : part 1 - list of patentees; part 2 - index to subject of inventions 1920-
DOC US C21.5/2
Annual compilations from the Official gazette, and about 2 year behind it.

Index to the U.S. patent classification 1980-
DOC REF US C21.12/2:
Alphabetical list of subject headings referring to specific

classes and subclasses of the patent classification system.

Manual of classification 1988-
DOC REF US C21.12:
Arranged by patent class number. Lists all subclasses for that class in numerical order.

Official gazette : patents 1872-
DOC US C21.5:
Weekly list by patent number. Indexed by patentees, also "subject of invention", i.e. class/subclass number.

Patent classification definition 1987-
Microfiche US C21.3/3:
A guide for the patent office clerks to use in assigning patent classification numbers. Gives one sentence definitions of what to include in each class, and gives references to other classes that may also apply.

What every engineers should know about patents 1989
REF KF3114.8.E54W48 1989

XII. Grants Information Sources

Grants information is very important to faculty, especially to those who are new to the university environment. The following list will provide you with grants information when you are considering submitting a grant proposal.

Who Is Giving

Annual register of grant support
REF LB2338.A58
Guide to grant support programs of government agencies, foundations, business, educational and professional organizations. Describes type, purpose and duration of grants funding available, eligibility, etc.

Catalog of federal domestic assistance
REF LB2338.D57
A basic work listing all kinds of funding projects available from all federal government departments, agencies, commissions, councils, administrations, etc. The main body is arranged by branches of the federal government and gives detailed reports on the program.

Directory of research grants
REF LB2338.D57
Provides information about grants contract and fellowship support programs from federal and state governments, private

foundations, associations and corporations.

Federal research reports 1985
REF LB2338.F44 1985
A news or current awareness service - announces deadlines, areas in which federal agencies are particularly interested in receiving grant proposals, and notes on new programs as well as updating old information. No index.

The Grants register
REF LB2338.G72
Includes North America, Great Britain, Ireland, New Zealand, Australia, and South Africa. Gives detailed information on scholarships, fellowships, grants, and awards. Has a subject index and an index of awards and awarding bodies.

Grantsbriefing
Periodical (on 3rd floor)
Monthly list of grant program opportunities, mostly from federal sources. Includes a list of grant awards to Rutgers faculty.

User's guide to funding resources 1975
REF LB2338.H85 1975
Listings of foundations, corporations, non-profit agencies, federal, state and local government agencies, religious groups and labor unions. Arranged by function and subject categories. Each division has an index.

What Was Given

The Foundation grants index
REF AS911.A2F66
Arranged by state and then by granting agency. Each entry lists the amount of money given, to whom the grant was made and a brief statement of purpose. Index of recipients domestic and foreign, a keyword subject index and a list by subject categories.

National science foundation grants and awards
REF Q180.U5A343
Classified listing by the subject or category of grants given. within each area, there is a sub-arrangement by state. Each gives principal investigators, title of program, length of the grant and amount of money. No index.

Research and development directory 1984
REF Q180.U5R38 1984
A list of contracts awarded, arranged in three ways. The first list is arranged by company which received the contract, and states briefly the purpose, contract numbers

and $ amount. The second list is the same information arranged by contracting agency and awardee. The last list is by type of work.

Research awards index
REF Q180.U5R4
Subject arrangement with approximately 14 headings per project. Gives project number and descriptive information. Alphabetical listing of principal investigators.

XIII. Dissertations and Theses

Dissertations and theses have two features which are valuable for doing research: (1) since they are required to be unique, they often deal with topics which are on the leading edge of progress; and (2) they generally have fairly extensive bibliographies. The following list of directional sources will help you to find dissertations and theses information on your topic. You will find dissertation and theses completed at Rutgers in the card catalog under Rutgers Theses arranged by departments. LSM does not collect dissertations or theses completed at other institutions, but many of them are available through interlibrary loan or available for purchase through University Microfilms International.

American doctoral dissertation 1963-
REF PER 5055.U5A54

Comprehensive dissertation index 1861-
REF PER Z5055.U5A52

Dissertation abstracts international 1952-
REF Z5-55.U5A53

Master abstracts international 1962-
REF PER Z5055.U5A57

Masters theses in the pure and applied sciences accepted by colleges and university of the United States 1958-
REF PER Z7401.M35

Rutgers dissertations: 1921-1981
REF Z5055.U49R82

XIV. Reference Manuals for Graduate Students

There are some reference sources designed primarily for graduate students who study in engineering fields to advise them about dissertation and thesis process, publication consideration,

resume preparation and job searching and field study guideline. The following titles are examples of what you may find.

Brown, John Fiske A Student guide to engineering report writing 1982
REF T11.B76 1982

Campbell, William G. and others Form and style : theses, reports, term papers 1986
REF LB2369.C3 1986

Engineering college research and graduate study directory 1970-
REF T73.E53 1988

Engineers Joint Council Professional income of engineers 1958-
REF TA157.E67

Graduate record examination engineering 1988
REF TA159.G62 1988

Hafer, Charles R. Electronics engineering for professional engineers'examinations 1989
REF TK7863.H33 1989

Lewis, Adele Beatrice The Best resumes for scientists and engineers 1988
REF Q148.L47 1988

Mauch, James E. and Jack W. Birch Guide to the successful thesis and dissertation : conception to publication, a handbook for students and faculty 1983
REF LB 2369.M377 1983

Michaelson, Herbert B. How to write and publish engineering papers and reports 1986
REF T11.M418 1986

Peterson's annual job guide. engineering, science, and computer jobs 1988
REF TA157.P44

Polentz, Lioyd M. Engineering fundamentals for professional engineers' examinations 1987
REF TA159.P6 1987

Scientific writing for graduate students : a manual on the teaching of scientific writing 1986
REF T11.S39 1986

The Technology and society internship directoey : a comprehensive guide to internship in Wachington, DC 1987
REF Q145.T73 1987

XV. Computer Search Services and Databases

Many printed indexes and abstracts you have been accustomed to searching manually are also available as databases which can be searched by computer. Rutgers libraries offer a fee-based computer search services called ROARS to the university community. ROARS provides searches in a variety of databases in engineering fields. If you have a great deal of difficulty finding information on a topic or need to do a very comprehensive search of the engineering literature, you may consider doing a computer search by using this service. The following selective list will give you some examples of engineering databases.

Aerospace Database
Provider: American Institute of Aeronautics and Astronautics/Technical Information Service
Coverage: 1962 - present
Subjects: aeronautics, astronautics, and space sciences; chemistry; geosciences; physics; communication; electronics, etc.

BIOSIS Previews (Biological Abstracts)
Provider: BIOSIS
Coverage: 1969 - present, 9,000 journals
Subjects: agriculture, bioscience, biotechnology, environmental science, food science, marine, medical engineering, medicine, nutrition, pharmacology, pharmaceutical science, toxicology, etc.

CA SEARCH (Chemical Abstracts)
Provider: Chemical Abstracts Service
Coverage: 1967 - present
Subjects: agriculture, bioscience, chemical engineering, energy, environment, food science, nutrition, pharmacology, pharmaceutical science, textile, toxicology, water, etc.

Ceramic Abstracts
Provider: The American Ceramic Society
Coverage: 1980 - present
Subjects: archeology; chemistry; semiconductors; engineering materials; fiber optics; glass chemistry and processing; instruments and test methods; material science; production processes and equipment; refractories; and clay products, etc.

COMPENDEX Plus (Engineering Index)
Provider: Engineering Information, Inc.
Coverage: 1970 - present, 4,500 journals
Subjects: civil, energy, environmental, geological, and biological engineering; electrical, electronics, and

control engineering; chemical, mining, metals, and fuel engineering; mechanical, automotive, nuclear, and aerospace engineering; and computers, robotics, and industrial robots, etc.

Current Technology Index
Provider: Library Association Publishing Ltd., UK
Coverage: 1981 - present
Subjects: acoustic engineering, architecture, aircraft engineering, building, chemical engineering, packaging, space science, etc.

Engineered Materials Abstracts
Provider: ASM International, U.S./Institute of Metals, U.K.
Coverage: 1986 - present,
Subjects: polymers, ceramics, and composite materials; equipment and systems; non-metallic materials; properties, processes, products, etc.

INPADOC/Family and Legal Status
Provider: International Patent Documentation Center,Austria
Coverage: 1968 - present, 55 countries
Subjects: list patents in all areas of technology, bibliographic data consisting of title, inventor, assignee, application numbers, countries, dates, equivalent patents, etc.

INSPEC
Provider: The Institute of Electrical Engineers, London
Coverage: 1969 - present, 3,900 journals
Subjects: computer programming and applications; computer systems and equipment;

ISMEC (Information Service in Mechanical Engineering)
Provider: Cambridge Scientific Abstracts
Coverage: 1973 - present, 750 journals
Subjects: mechanical, nuclear, electrical, electronic, civil, optical, medical, and industrial process engineering; mechanics; production process; energy and power; transport and handling; and application of mechanical engineering.

METADEX
Provider: ASM International, US and The Metals Society, UK
Coverage: 1966 - present, 1,100 journals
Subjects: materials, processes, properties, products, forms, etc.

NTIS
Provider: National Technical Information Service
Coverage: 1964 - present
Subjects: agriculture and food, chemical engineering, computer

science, civil engineering, energy, materials science, transportation, etc.

SCISEARCH (Science Citation Index)
Provider: Institute for Scientific Information
Coverage: 1974 - present, 2,600 journals
Subjects; all aspects of scientific and technical disciplines.

Standard & Specifications
Provider: National Standards Association, Inc.
Coverage: 1950 - present
Subjects: provides access to all government and industry standards, specifications, and related documents which specify terminology, performance testing, safety, materials, products, etc.

SUPERTECH
Provider: R.R. Bowker
Coverage: 1973 - present
Subjects: biotechnology, artificial intelligence, CAD/CAM, robotics, telecommunications, etc.

ENGINEERING COLLECTION
DEVELOPMENT POLICY STATEMENT
(Draft)

By

Connie Wu
Engineering Resource Librarian

Rutgers University Libraries
September 1989

I. PROGRAMS/PURPOSE

The College of Engineering offers academic programs leading to the B.S., M.S. and Ph.D. in Biological & Agricultural Engineering, Biomedical Engineering, Ceramic Science, Chemical & Biochemical Engineering, Civil & Environment Engineering, Electrical & Computer Engineering, Industrial & System Engineering, Mechanical & Aerospace Engineering and Mechanics & Materials Science Engineering. In 1988, the college contained 9 engineering departments, around 1,000 graduate students, 2,200 undergraduate students, 150 faculty members and 255 research projects. The engineering collection at Library of Science & Medicine seeks to support both research and educational functions of the college, and serves the entire Rutgers University community and users outside of the university who are interested in this area of knowledge.

II. DESCRIPTION OF MATERIALS COLLECTED

A. ESTIMATED SIZE OF COLLECTION

BOOKS (TITLES) 32,000; PERIODICALS (CURRENT TITLES) 900
OTHER (MICROFORMS) 3,500

B. TREATMENT OF SUBJECT

For engineering disciplines, the library is attempting to build a research level collection (level 4). The collection covers all the subjects mentioned in section I, with emphasis on Electrical & Computer Engineering and Ceramic Science because of large number of students in the fields. Also, since engineering information changes rapidly, the collection demands more journals, proceedings/symposia, research level treatises and technical publications of professional associations.

C. TYPES & FORMATS

Collected selectively:

Specialized reference tools, i.e., abstracts, indexes, handbooks, yearbooks. encyclopedic works, dictionaries, source books, bibliographies and standards;

General engineering materials, i.e., journals, proceedings, transactions, dissertations, theses, monographic series and monographs.

In addition to traditional print forms, microforms(i.e., back runs of journals, standards, etc.) are being purchased. As electronic formats increase, CD-ROM and floppy disks are being acquired when necessary.

D. CHRONOLOGICAL, GEOGRAPHICAL, AND LANGUAGE PARAMETERS

Chronological periods

Collected extensively:	Latest engineering materials
Collected selectively:	All other periods

Geographical focus

Collected extensively:	United States, European Countries and Japan
Collected selectively:	Any country with a well-developed technology

Languages

Collected extensively:	English language materials
Collected selectively:	Translations of foreign language works

Excluded: All other languages, exceptions on request

E. CRITERIA FOR INCLUSION/EXCLUSION

Information about general social, business, economic, legal and management is not being purposefully collected. General textbooks and professional books used only for practical purpose(non-scholarly) are not actively included. Preprints, preliminary technical reports, lecture notes, equipment catalogs, and pamphlets are also excluded.

III. STRENGTHS AND WEAKNESSES

The engineering collection contains approximately 32,000 volumes monographs(about 2,500 volumes are in reference collection), 900 current journal and standing order subscriptions. Comparing with monograph collection, the journal collection is relatively strong. Holdings of abstracting and indexing series are pretty comprehensive. The engineering collection provides a basic support for undergraduate and graduate academic programs as well as research projects in engineering.

Due to lack of budget and full-time librarian in the past, the overview of the engineering collection is at an inadequate level. The collection needs considerable strengthening, particularly in biological & agricultural engineering, biomedical engineering and mechanical & aerospace engineering. The proceedings/symposia, technical publications of professional associations and patents should be emphasized. It is also important to consider continually strengthening the journal collection in engineering fields.

IV. RESOURCE SHARING ARRANGEMENTS

RLG membership and the RLIN database provide access to important engineering resources at Princeton's Engineering Library and other libraries in the New York metropolitan region. Princeton Engineering Library collects materials in all areas of engineering and applied technology, particularly in electrical & electronic engineering and transportation. The New York Public Library and Newark Public Library have quite strong patent collections. There are, however, no formal cooperative arrangements.

V. SPECIAL CONSIDERATIONS

Since Library of Science and Medicine is the only library which serves entire engineering community in Rutgers, including upper undergraduate level materials in the collection is very desirable even though LSM supposes to select materials mainly at research level. In addition, including electronic formats in the collection is also important.

LIBRARY OF SCIENCE AND MEDICINE (LSM)

REGULAR HOURS:

Mon.-Thurs.	8 am. - 1 am.
Fri.	8 am - 11 pm
Sat.	10 am. - 8 pm.
Sun.	11 am. - 1 am.

Bibliographic Instruction: - a review of library resources and databases in any science subject for a class, or department, held in the department or the Library, will be provided by the Library. Call 932-2895 to arrange for such instruction.

Books: Call # A - RB are on 1st floor; RC- Z are on 2nd floor.

Card Catalog: 2nd floor. Divided catalog - one for author & title cards, another arranged by subject. There is also a separate catalog for Documents.

Circulation: 1st floor. Books that circulate are charged out on our new automated IRIS system using a light pen and barcode. IRIS permits users to see whether a particular book is charged out, on RESERVE or recalled. It also permits users to see what items are currently charged out on their own cards. Terminals for public access are currently on the 2nd floor.

Staff, faculty and students of Rutgers University and Robert Wood Johnson Medical School are eligible for circulation privileges. If you don't have a bar-code on your ID card, stop at the CIRCULATION desk on the 1st floor of the Library to have one issued.

Computerized Database Searching: ROARS - Rutgers Online Automated Retrieval System - provides searches of bibliographic and numeric databases for a fee. You can request a search appointment at the REFERENCE Desk -2nd floor- or submit a *SEARCH EXPRESS* form for simple searches which can be done in your absence.

Documents: 2nd floor. Federal, state, international and foreign documents. Shelved by Superintendent of Documents call number. Use special documents catalogs or ask for help at Reference.

Indexes and Abstracts: 2nd floor. Reference Periodicals. Indexes and abstracts are arranged by call number. See handout or card catalog for call number of the index or abstract you wish to use.

Microcomputers: 3rd floor. MacIntosh and AT&T microcomputers, and Laser printers are available on first-come, first serve basis. Some software can be charged out at RESERVE desk (1st floor).

Periodicals: 3rd floor. Shelved in straight alphabetical order by title. Current year is shelved in current periodicals room - in corner behind "fencing". Lists of periodicals holdings on microfiche are on 2nd and 3rd floors. Printed lists are on 2nd floor behind REFERENCE DESK.

Photoduplication: 3rd floor. Do-it -yourself copying at 10 cents a page is available for cash or by using a COPICARD. Locate-and-copy service is available at 15 cents per page. Call 932-2269 for details.

Reference: 2nd floor. For information, assistance with search strategies or to submit computer search requests and interlibrary loans. During fall and spring semesters, reference librarians are available at LSM according to the following schedule. **Holiday and intersession hours will be posted.**

Reference Hours:

Mon.-Thurs.	9 am - 9 pm.
Fri.	9 am - 5 pm.
Sat.	10 am - 6 pm.
Sun.	12 noon- 8 pm

Reserve: 1st floor. At Circulation Desk. Items are shelved by call number. Listed in RESERVE notebook and on IRIS by Instructor and Course Number. Some items are on permanent RESERVE.

Science Branch Libraries: Call for hours and services:

Alcohol Studies - Busch	932-4442
Chemistry - Busch	932-2625
Entomology - Cook	932-9774
Mathematics - Busch	932-3735
Microbiology - Busch	932-2906
Physics - Busch	932-2500

Rutgers University Libraries

BORROWING POLICIES

Who can borrow?

Rutgers University and Robert Wood Johnson Medical School students, faculty, and staff, as well as alumni and other persons with valid Guest Cards or Corporate Borrower Cards, can borrow materials from any Rutgers library.

What can be borrowed?

All materials circulate except for the following: most journals, periodicals, newspapers, and maps. However, reference books in any of the libraries and material in the Department of Special Collections/Archives and the Art Library do not circulate.

For how long?

The "Date Due" is stamped at the back of the book: most borrowers may charge out materials for 28 days; faculty, graduate students, and staff are granted Term (Semester) Loan. Students, faculty, or staff members may RECALL material, which will require earlier return of the item.

Can I renew it?

If you are a Rutgers University or Robert Wood Johnson Medical School student, faculty, or staff member, you can renew any items which no one else has requested.

We do not accept renewals by telephone, but staff at any circulation desk can complete a renewal. You don't have to have the item with you unless it is more than 21 days overdue.

If it's charged out, can I get it?

Rutgers or Robert Wood Johnson Medical School students, faculty, and staff may RECALL any item charged to someone else. It may, however, take up to 14 days to get the material. When the book is returned, you will be notified to pick it up at the library from which you requested it.

Where do I return it?

Material borrowed from any Rutgers library can be returned to any other Rutgers library.

What if someone wants the material I have?

If you get a RECALL notice you must return the material by the date on the notice to avoid being fined.

What if I forget?

You will receive a notice when an item is 7 days overdue, but you are responsible for taking note of the "Date Due"! If you don't return or renew material within 21 days of the "Date Due," your borrowing privileges will be suspended. If the item has been lost, you must pay replacement costs in order to reinstate your borrowing privileges.

Are there fines?

Only recalled books which are not returned by the "Date Due" generate fines. If you fail to return your book when it has been recalled you will be fined $4.00 day to a maximum of $20.00.

How do you notify me?

If you have a campus mailbox, all library notices will go there, otherwise mail is sent to a home address. You are responsible for checking your mail for any notices and for keeping your address current with us.

What if I have a problem or question?

Don't hesitate to contact a member of the Circulation staff.

Circulation Departments

Alexander Library	(201) 932-7851
Art Library	(201) 932-7739
Camden Arts and Sciences Library	(609) 757-6033
Center of Alcohol Studies Library	(201) 932-4442
Chemistry Library	(201) 932-2625
Center for Urban Policy Research Library	(201) 932-3136
Douglass Library	(201) 932-9411
Institute of Management and Labor Relations Library	(201) 932-9513
Kilmer Library	(201) 932-3613
Library of Science and Medicine	(201) 932-3854
Mathematical Sciences Library	(201) 932-3735
Microbiology Library	(201) 932-2906
Newark Dana Library	(201) 648-5161
Physics Library	(201) 932-2500

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS

Helpful Tips for Library Research

1. Make sure you understand your assignment or project. If you do not, ask your instructor to explain it to you.
2. Start your library work early. Library work takes time. Materials are more likely to be available early in the semester.
3. Be systematic about your research. Keep careful and complete notes about titles and topics looked up. It is useful to keep a notecard for each book or journal article you use. Write down the author, title, place of publication, publisher, date of publication, volume number, and page numbers. You will need this information for your bibliography. The bibliography should contain references to all the works you use in writing your paper.
4. Be aware that many of the library materials you want may be checked out, unavailable, or inappropriate to your topic. If you start with this assumption, you will not be disappointed and will be prepared to take advantage of other options.
5. Feel free to ask for assistance at the reference desk until you find what you want and are satisfied.

How to Find Books

To find books in the library, you can use the card catalog by author, title. or subject, or the IRIS terminal by author, title, or call number.

In each library, the card catalog only contains cards for library materials in its own library or its own campus libraries. It does not contain cards for library materials in other campus libraries. The catalog has two parts: one for author/title, another for subject.

Step 1. If you have a particular book and author in mind, look up the author's name first. An author can be a personal name, a corporation, association, or a conference sponsor. One thing you must know is that an editor is not an author. You can never find an editor's name by looking for author"main entry."

Step 2. If you do not know the author's name or cannot find it , look for the title. Remember that the articles (A, An,The) at the beginning of a title are disregarded when catalog cards are filed.

Step 3. When you want a book which is part of a series or a conference, look up the name of the series or conference. Sometimes the name will be abbreviated in your reference. Ask for help at the reference desk if you do not know the full name or cannot find the item.

Step 4. When you want books on a general subject, use the Subject Catalog. If you cannot find the topic included in the Subject Catalog, check the Library of Congress Subject Headings list or ask for assistance at the reference desk.

Step 5. Write down the call numbers you find in the top left corner of the cards, check the location , and go to the shelves to pull the books.

Step 6. If Rutgers libraries do not own the book you want, use the Interlibrary Loan service.

How to Find Periodical Articles

To find periodical articles, you need to use periodical indexes. To find whether the libraries own a particular periodical, check the Rutgers Union List of Serials (RULS). RULS is a list, kept in the reference area, which indicates all periodical titles owned by the Rutgers libraries. Arranged alphabetically by periodical title, RULS tells you which libraries own a particular title, what years they own, and whether it is in paper copy or in microform.

Step 1. If you know a particular periodical title, simply check RULS to find out if the libraries own it or where it can be located.

Step 2. If you need periodical articles on a specific subject, use periodical indexes. The indexes list articles in different periodicals by subject. Ask the reference librarian to recommend the best periodical index for your topic.

Step 3. Look under pertinent subject headings in the index and find references for your topic, and write them down.

Step 4. Check RULS, and then go to the shelves to obtain the periodicals. The periodicals in most Rutgers libraries are arranged on the shelves alphabetically by title.

Step 5. Periodicals cannot be checked out but you can make photocopies. Most Rutgers libraries have self-service copying machines. The cost is $10 per page.

Step 6. If the libraries do not own the periodical you want, you may be able to obtain it from other libraries through Interlibrary Loan. Ask about this service at the reference desk.

Prepared by Connie Wu

LIBRARY OF SCIENCE AND MEDICINE

Library Guide
15a

How to Request an Interlibrary Loan

What is it?

Books, copies of periodical articles, technical reports and other library materials that are not held in the collections of the Rutgers University Libraries are obtained from other libraries for your use at Rutgers. This service is usually free, but occasionally there is a charge if an item costs more than twenty dollars to obtain.

Rutgers has special interlibrary loan arrangements with other academic libraries through the Research Libraries Group, the Center for Research Libraries, and other library consortia that can help you obtain little used but important research materials. Some examples include foreign doctoral dissertations, archival materials, and government documents.

Who may use it?

All Rutgers University faculty, staff, and students are eligible to use the service. You may request up to ten items per week.

How long does it take?

It may take several weeks, depending on a variety of factors. When making a request, you should specify a deadline after which you no longer need the material. Loan periods are generally three weeks but may vary according to the policies of the lending library. You will be notified by phone or mail when the material you have requested is received. Borrowed items may be picked up at the Circulation Desk.

What kinds of materials can an interlibrary loan provide?

Books and Technical Reports: They are borrowed in hard copy or microform for your use at Rutgers.

Periodical Articles: Articles from journals that are not available at Rutgers are photocopied by other libraries and sent to Rutgers.

Dissertations and Theses: Most libraries will not lend their dissertations if they appear in *Dissertation Abstracts International* and are available through University Microfilms; however, the interlibrary loan office will borrow them whenever possible. Ask at the Reference Desk for information about the lending policies of other libraries.

Government Documents? Pamphlets? Maps? Etc.: Lending policies for these materials depend on the lending institution. Photocopies may be provided for items that do not circulate. You will occasionally be required to use these materials in the library.

What is not available through interlibrary loan?

We normally cannot accept requests for any materials that are held in the Rutgers University Libraries, including books on reserve, books charged out to other users, or books in noncirculating collections.

If the material you need is not available at one Rutgers library, it may be obtainable from another Rutgers library through intralibrary loan. There may be a fee for photocopied material. For more information about intralibrary loan, ask at the Circulation or Reference Desks.

How do I request materials?

Application forms are available at the Reference Desk. Please fill out the form as completely as possible. (See sample on verso of this sheet.) Before making a request, please check the *Card Catalog* and the *In-Process File* for books, the *New Jersey Union List of Serials* for periodicals, and the *Documents Card Catalog* for documents to be certain that the material is not available at one of the Rutgers University Libraries. For assistance in using any of these files, ask at the Reference Desk.

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Interlibrary Loan Form—Sample

Printing as clearly as possible and providing as much information as possible will help speed along your Interlibrary Loan request!

1

Be sure to give the phone number at which you can be located should the need arise. "Cancel After" is important information for those requests that may take extra time.

2a

This section should be completed for books, monographs, dissertations, etc. Give the author's full name and the full title. If there is a series title, include it.

2b

This section should be completed for requests for articles from journals, periodicals, newspapers, proceedings, etc. Give us *all* the information you have. The lending library will only copy and send specific pages of an article, not an entire journal or periodical.

3

a) Indicate where you found the "cited" reference to the item you are requesting. For example, you may have found a book referred to in a bibliography, a dissertation listed in *Dissertation Abstracts*, an article indexed in *Psychological Abstracts*. Give full information for that source, that is, author, title, year, publisher, page.

b) Check whether the material is not owned by, or is missing from, the Rutgers Libraries. A missing item must be reported missing or "billed" on the circulation microfiche to be requested through interlibrary loan.

4

Before making an interlibrary-loan request, you must determine that Rutgers does not own the item. Indicate if you have checked the *Union Catalog* for a book, monograph, dissertation, etc., or the *NJULS (New Jersey Union List of Serials)* for a journal. Ask at the Reference Desk for assistance.

RUTGERS INTERLIBRARY LOAN REQUEST

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Date of Request 9 / 12 / 93 PLEASE PRINT (1) Cancel After 2 / 12 / 94

Name: James Cook
Address: 82 Main Street
East Orange, NJ
Phone 676-3942 Extension

I.D. # 443821
Department/College Major Psychology
Faculty ___ Research ___
Staff ___ Mast/Doct. Thesis ✓
Grad ✓ Coursework/Teaching ___
Undergrad ___ Honors Course/Thesis ___

BOOK AUTHOR/TITLE: (2a)
Hastorf, Albert
Cognitive social psychology

DATE: 1982 EDITION:
PUBLISHER: Elsevier
SERIES: Theories and Issues in Psychology Vol. 1
LCCN: ISBN:0-444-00611-6
Language of Item:
This edition only ___ Any edition ___
Book only ___ Microfilm acceptable ___

ARTICLE AUTHOR/TITLE: (2b)
Singer, J.L. et al
A factor analytic study of preschoolers' play behavior

JOURNAL TITLE: Academic Psychology Bulletin
VOL: 2 ISSUE: 2
DATE: 1980/Jan PAGES: 143-156
ISSN:
Language of Item:
Photocopy only ___ Microfilm acceptable ___

ITEM VERIFIED OR CITED IN (Please give full citation):
Psychological Abstracts 66:1091, 1981

b. Material is: (3)
Not Owned by this library ✓
Missing at this library ___
Other ___

LOCATIONS — LIBRARY / Source # / CALL NUMBER/HOLDINGS (4)

SOURCES CHECKED (✓ = Found 0 = Not Found)
1.Union Catalog ✓ 5.NJULS ___ 7.CASSI ___ 12.RAL ___ yr ___ vol. ___ p. ___
2.MAC ✓ 6.UCMP ___ 8.HSS ___ 13.NUC ___ yr ___ vol. ___ p. ___
3.MAC Suppl/Weekly ✓ 9.UCULS ___ 14.ULS ___ vol. ___ p. ___
4.IP File ___ 10.OCLC ___ 15.NST ___ yr ___ vol. ___ p. ___
11.RLIN ___ 16.CRL ___ yr ___ vol. ___ p. ___
17.OTHER ___

ACCEPTED BY ___ DATE ___
REQUESTING UNIT ___ RECEIVING UNIT ___
REQUEST SUBMITTED TO DOS (ALEX) LSM) DATE ___
VIA: MAIL ___ RAILLS ___ PHONE ___

GY-415-83